ALTHEA Gold Libraries[™] ntibody Novel Antibody Libraries for Therapeutic Antibody lesign Discovery



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antibody complex structures. The diversification regimes are designed based on the amino acid frequencies of the repertoire of human germline genes and known human antibody sequences. Through a proprietary process comprising the selection for thermostable scFv variants, followed by shuffling of the natural H3J fragments, ALTHEA **Gold Libraries**[™] provide a highly diverse, functional and developable repertoire of human antibody fragments suitable for antibody therapeutic discovery and development. The potential of ALTHEA **Gold Libraries™** to generate specific antibody fragments has been assessed with multiple targets including protein models (Hen Egg White Lysozyme; HEL, Human Serum Albumin; HSA), several therapeutic targets including TNF α , a protein/peptide complex, and membrane proteins. In all case studies, diverse and specific antibodies were obtained with Kd in the low nM range.

Alternative Topographies to Bind Protein and Peptide Targets

The shape of the antigen-binding site determines the type of the antigen the antibody interacts with.



Multi-stage Antibody Library Construction



Biopanning with Protein Models

Lysozyme Parallel Biopanning of the Anti-protein and Anti-peptide Libraries and Trypsin Elution





ALTHEA Gold Libraries[™] scaffolds provide two alternative antigenbinding site topographies: One flat suitable for protein antigens and the other grooved biased towards the recognition of peptides.



Also...



peptide/protein complex and a membrane protein

Summary



The V_H scaffolds binds Protein-A and enables filtration of well-folded antibodies. One of the V₁ binds Protein-L and enables assay development and identification of variants coming out of the antipeptide libraries when used combined with the anti-protein library



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Each set of ALTHEA Gold Libraries[™] is unique, combining carefully designed human scaffolds of improved developability with natural CDR-H3 diversity. Please direct your inquiry for ownership to Antibody Design Labs or GlobalBio, Inc.